



THE RARA RAG

Newsletter of The Rochester Amateur Radio Association, Inc.

Founded in 1931

RARA ANNUAL PICNIC SATURDAY JULY 27TH

TIM BARRETT, K9VB, RARA VICE PRESIDENT



It's time for the annual RARA Summer picnic! This is always a great occasion and an opportunity to enjoy good food, good company and play with radios! RARA provides the food and beverages and we'll have our club radio set up. Mark the date in your diary and come enjoy the fun!

Feel free to bring any other radio gear that you would like to demonstrate or use – the more the merrier.

The picnic is at the Stewart Lodge in Mendon Ponds Park on Saturday July 27th (11:00AM – 2:00PM). For directions and the latest information please check [our website](#)

regularly. We will be setting up around 10:00AM, the grill gets ready around noon and the burgers and hots will be ready soon after that. You are of course welcome to get there early to enjoy the day and each other's company. We invite you to bring a dessert to pass so we can have an assortment of treats to choose from. In the past we have had some impressive goodies. Please take this opportunity to show off your culinary skills!

There will be door prizes!

Schedule

10:00 Setup (Food and Radios)
11:00 Picnic Opens
12:00 Food Starts Cooking
12:01 Fun Starts
02:00 Wrap up

Come Operate! Set up your radio and antenna or use one of the club's radios. Setup starts at 10:00AM. Want to Volunteer? We need your help — email us at membership@rochesterham.org.

JULY 2024
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K2JD

N2EH

W2EOC

JULY IS FOR PICNICS

THERE IS NO RARA MEETING IN JULY
THE PICNIC
IS THE
MEETING

SATURDAY JULY 27TH
STEWART LODGE, MENDON PONDS PARK



See page 1 for details

BOARDZ BUZZ

TIM GUYOT, KB1POP, DIRECTOR

Conventionally I'd be writing at length about the success of our recently concluded Hamfest. While that is unfortunately not the case this year, there is good news; we've started planning the 2025 event.

The first step in planning the event is always finding a suitable location. There is a somewhat lengthy list of requirements, but here are the basics:

- Available in the first few weekends of June (We won't set the date until we have the 2025 Tour de Cure date)
- Minimum of 4 acres of field or 700 parking spaces
- If grass, it must be well drained and drivable in June
- Indoor space, or the permission to set up tents for license exams and club space
- Access Friday afternoon for setup

The Hamfest committee gets a lot of "Have you thought about location x?" inquiries. We do have a list that we're working from, but we don't want to publish it here because it's constantly changing. If you'd like to contribute to the location scouting and selection process, e-mail hfproducer@rochesterham.org and within a week of this article coming out we'll send an update on the current locations being evaluated to everyone who asks. If you want to suggest a location, please ensure that it meets the criteria above first.

As soon as we have signed contracts we can start advertising our date and location. The earlier we do this, the better our attendance and ability to pay the bills and fund the educational grant.

The time between location contracts and the event is spent arranging other services and planning as many additional Hamfest activities as we have time and support for. We always have the flea market, license exams, and the raffle, but with enough lead time, we like to arrange other activities like presentations, and demonstrations. If you think that you can help with any of this send us an e-mail at hfproducer@rochesterham.org and we can talk about joining the Hamfest committee or maybe just taking on a few assignments.



Example Location

OUR ANNUAL BUSINESS MEETING IS SEPT. 4, 2024

MIKE MOORE, KC2NM, SECRETARY

The annual RARA business meeting will be held on Wednesday, Sept. 4, 2024. The meeting will follow the in-person/online hybrid format we are accustomed to. In order to conduct the business of the club, we need a quorum of 10% of the membership to be in attendance in-person or online at that meeting. It is important that you attend the meeting in person or online. Please make plans to attend. The minutes of last year's business meeting, biographies of the board and officer candidates, and recommendations of the nominating committee will be published in the September issue of the RARA Rag. The voting procedures for the online attendees will be described in the September Rag. Please plan to familiarize yourself with this information when the Rag arrives in late August.

We will complete the business meeting before moving on to elements of our regular meeting. The business meeting agenda is:

- Count of Members
- Approve 2023 Minutes
- Election
- Dues
- Treasurer's Report
- Close of the Annual Business Meeting

I have found my experience as a RARA board member and officer to be very rewarding and it has added to my enjoyment of our hobby. I urge you to consider what role you might accept as a leader of our club? Contact information for the current board is given at the end of every issue of the RARA RAG. I invite you to contact a member of the board to learn what the job involves.

RARA MEMBERSHIP NEWS

TIM BARRETT, K9VB, RARA VICE PRESIDENT AND MEMBERSHIP SECRETARY

Membership of RARA now stands at 434. That's a healthy membership but we are still behind the 547 members we had at this time last year, so if your membership has lapsed, please consider renewing and help us build back our membership count.

Thanks to all who have already renewed. Good news is that we are now taking renewals through to September 2025 so you get an extra few months as a bonus if you renew now!

If your membership has lapsed, please renew your membership!

You can join by clicking [here](#) or renew your membership [here](#).

There are many membership benefits, here are just some of them:

- Only members can attend the RARA Annual Auction
- Free admission to the RARA Hamfest
- Access to license classes and discounts for license manuals
- Annual events such as the Picnic and Winterfest
- Earn Membership Points for contributing/volunteering at Club Events.
- Redeem Membership Points for annual dues and other activities
- Supporting an Organization that you value!

Being a member is also important, as your dues and a healthy membership count contribute to many RARA activities such as Rag subscription, monthly meetings, RARA Academy sessions Elmer's Corner, [groups.io](#) mailing list, Facebook page, etc. Attracting good speakers is greatly helped when we can point to the size of our club, one of the largest ARRL affiliated clubs by the way.



To remind you all, the software package we use to manage membership is very old and missing features that we would like to see. One of its limitations is that it stores in plain text the access code you use to get to your information from our website. That means the support team (both of us!) can see the code, so don't use your secret password or confidential information.

I'd like to give a warm welcome to our two new members, Tom DiVincenzo and Dean LaClair, K2WW.

Remember to look out for new members at RARA events and make sure to introduce yourself and welcome them to the club!

Get Your RARA Merch at Cafepress®



Tees, Hooded Sweatshirts, Caps and More!

www.cafepress.com/rararadio

UPCOMING EVENTS

BRIAN O'CONNOR, KA2CGB, TREASURER

This summer will include many opportunities for you to be out and about with RARA:

July 27: RARA Summer Picnic at Stewart Lodge in Mendon Ponds Park

August 10: The MS ROC Great Lakes Adventure benefits the Multiple Sclerosis Society. This fundraising event will begin and end at Lakeside Beach State Park extending west toward Olcott. Orleans County OCARC will be leading this activity.

August 10: We have been asked to provide operational and safety communications for the Mammoth March, which is a rigorous 20-mile, 8-hour hike around Letchworth Park. Because of the topography, we may need to be creative with multiple repeaters, cross band and maybe even 6 meters or HF. We plan supporting HQ (start/finish) along with four (4) on-trail aid/water stations as well as mobile support by sweep and shuttle crews.

August 17-18: Join us at the Charlotte-Genesee Lighthouse for the International Lighthouse Lightship Weekend (ILLW). This should be a great year to make HF QSOs with individual Hams as well as other ILLW stations.

Hamfests in Western New York

July 13: RAGS Hamfest, Radio Amateurs of Greater Syracuse, Camillus Elks Club: <https://ragsclub.org/ham-fest/>

July 20: Batavia Hamfest, Lancaster Amateur Radio Club, Alexander NY: <https://w2so.org/batavia-hamfest/>

August 17: KLARA Hamfest, Hornell NY: <http://klara.us>

August 24: ROC City Net Hamfest in Macedon: <http://roccitynethamfest.com/>

Several more Hamfests will be held in September. For a current listing see <https://www.upstateham.com/p/2014-upstate-hamfests-that-i-have-heard.html>

CALENDAR OF EVENTS

Saturday Jul 27, 2024 - RARA Summer Picnic at Stewart Lodge in Mendon Ponds Park. Set up at 10:00 AM, picnic starts at 11:00 AM

Wednesday August 7, 2024 - RARA Meeting In Person and On-Line 7:00 PM

Saturday Aug 10, 2024 - MS Roc the Ride Great Lakes Adventure, Lakeside Beach State Park

Saturday Aug 10, 2024 - Mammoth March Upstate NY, Letchwork Park

Saturday & Sunday Aug 17, 18, 2024 - ILLW Charlotte-Genesee Lighthouse



EDUCATION

Karl Heinz Kremer, K5KHK, Education Coordinator

RARA LICENSE COURSES

License Classes

It is summer, which means that our classes are taking a break. If you missed our last round of classes, please let us know that you are interested, and we will put you on the list for the next session. Just like our license classes, our VE testing sessions are also taking a break until September. Keep in mind that there are other testing opportunities in the area: Spring and summer is the season of hamfests, and a lot of hamfests do offer VE testing.

New General Question Pool

Since July 1st, 2023 all General license exams are now using the new question pool, which means that you need the 10th edition of the ARRL License Manual to study for the test. Make sure you have the correct edition. Even though this book is almost brand new, it already is out of date – the FCC changed the data rate limitations on the HF bands to a bandwidth restriction. In general, you can find the questions in all three question pools that have been withdrawn listed on this page: <http://www.arrl.org/withdrawn-questions>.

New Amateur Extra Question Pool

Starting on July 1st, we will have a new question pool, and with that will also come a new license manual. The ARRL has not yet released the new book, as soon as it is available, we will have a few in stock.

License Manuals

The current editions of the Technician and General license manuals are available to our members at a discount for \$25. At this discount, we unfortunately can not deliver, and you would have to pick up the manual. If you are interested, please send an email to education@rochesterham.org

The Amateur Extra license manual expired at the end of June 2024, starting in July the new testing pool will be used for the Amateur extra license test. I will have the new license manuals available within the next few weeks. If you are interested, please let me know and I will reserve one for you.

I usually have some license manuals with me at official RARA events (e.g. the monthly meetings).

RARA ACADEMY

If you have anything you would like to teach in a RARA Academy, please let us know. Even if it's something shorter, we can combine your topic with something else to fill the two-hour time slot that we usually aim for.

We are still looking for input in what our next Academy session should cover. To make it easy for our members to provide such input, we created an online survey. Please go to [RARA Survey](#) and fill out the survey form.

And we are again looking for a volunteer to organize our RARA Academy sessions. This is a position for which you don't have to be an expert in anything as long as you are **good at organizing things**, and you will get a front row seat for all Academy presentations. If you are interested in joining our education team, please let us know.

RARA ELMERS' CORNER

Suzanne Bishopp, W2SUZ
Rich Bishopp, KD2UBJ
Elmers' Corner Coordinators

1st Saturday of the month
September – May

Summer is here, and so is the camping season. Rich and I will be out in our teardrop a lot this summer, so we'll be taking a couple of months off from doing the Elmers' Corner meetings.

Remember, just because we won't be doing Zoom meetings in July and August, doesn't mean we can't help you. We will always be around to answer any questions you have.

Please email your questions to us at elmerscorner@rochesterham.org and we will find the right person to help you.

ELMERS' CORNER

Next Zoom Meetings:

September 7th 10am

October 5th

Join Zoom Meeting

[https://us02web.zoom.us/j/83484674667?](https://us02web.zoom.us/j/83484674667?pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09)

[pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09](https://us02web.zoom.us/j/83484674667?pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09)

Meeting ID: 834 8467 4667

Passcode:786545

One tap mobile

+16465588656,,83484674667#,,,,*786545# US (New York)

+13126266799,,83484674667#,,,,*786545# US (Chicago)

Dial by your location

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+1 312 626 6799 US (Chicago)

+1 301 715 8592 US (Washington DC)

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

+1 669 900 9128 US (San Jose)

Find your local number: <https://us02web.zoom.us/j/kiOoVkCMY>

Suzanne – W2SUZ

Rich – KD2UBJ

MORSE CODE TRAINING

Dave Wilson, WA2HOY, RXCWG Coordinator

The RXCW Group assists Hams wanting to learn Morse Code or to develop their CW skills.

BEGINNERS MORSE CODE ZOOM CLASSES

LOOKING FOR A NEW BEGINNER'S MORSE CODE ELMER

To all CW Elmers, Pete Fournia, W2SKY, has stepped down as instructor for the Beginner's Morse Code Class. If you would like to take over this class and help folks get started in CW, please get in touch with me, Dave, WA2HOY, or Karl Heinz, K5KHK.

MORSE PRACTICE FOR ALL LEVELS ON ZOOM AND ON THE AIR

Tim Brown, WB2PAY, hosts Zoom code practice for all levels on Thursday evenings at 7:30pm. For On Air schedules contact Tim at:

tjbrown@rochester.rr.com

RXCWG INTERMEDIATE CW PRACTICE- 7:30pm Thursdays

Join Zoom Meeting

[https://us04web.zoom.us/j/79966212852?](https://us04web.zoom.us/j/79966212852?pwd=M0M1MlBmVTJkWWI0RjRLYXljc3pOUT09)

[pwd=M0M1MlBmVTJkWWI0RjRLYXljc3pOUT09](https://us04web.zoom.us/j/79966212852?pwd=M0M1MlBmVTJkWWI0RjRLYXljc3pOUT09)

Meeting ID: 799 6621 2852

Passcode: tpjz8e

W1AW On The Air CW Practice

<http://www.arrl.org/w1aw-operating-schedule>

Time	Mon	Tue	Wed	Thu	Fri
9 AM		Fast	Slow	Fast	Slow
4 PM	Fast	Slow	Fast	Slow	Fast
7 PM	Slow	Fast	Slow	Fast	Slow
10 PM	Fast	Slow	Fast	Slow	Fast

SLOW - 5, 7 1/2, 10, 13 and 15 wpm

FAST - 35, 30, 25, 20, 15, 13 and 10 wpm

FREQ(MHz) - 1.8025, 3.5815, 7.0475, 14.0475, 18.0975, 21.0675, 28.0675, 50.350, 147.555

RADIO ELMERS

Name	Call	Area	Email
Tim Brown	WB2PAY	Ogden	tjbrown@rochester.rr.com
Dave Carlson	N2OA	Batavia	kdcarlso@gmail.com
Lawrence Hill	N2AJX	Henrietta	lawrence.hill@rit.edu
Rich Hoffarth	K2AXP		rhoffarth2000@yahoo.com
Bill Kasperkoski	WB2SXY	Pittsford	wb2sxy@gmail.com
Don Kiser	AC2EV	N Greece	dkiser100@gmail.com
Karl Heinz Kremer	K5KHK	Chili	k5khk@khk.net
Tim Magee	WB2KAO	Greece	585-704-5747
Mike Moore	KC2NM		mikemoore@ieee.org
Peter Schuch	WB2UAQ	Perinton	pschuch@rochester.rr.com
Forest Shick	WA2MZG	Webster	fshick3@gmail.com
Dave Timmons	W2DST	N Greece	dstimmons@gmail.com
Steve Verzulli	KA1CNF		verzulli@yahoo.com
Dan Waterstraat	W2DEW	Henrietta	higreen@rochester.rr.com

CW ELMERS

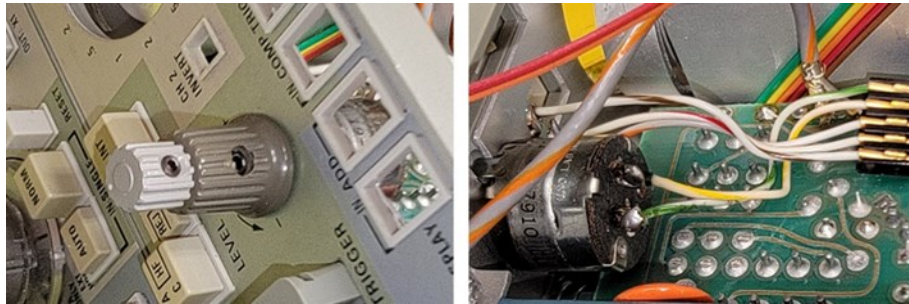
Name	Call	Area	Email
Ned Asam	W2NED	Pittsford	w2ned@frontiernet.net
Tim Brown	WB2PAY	Ogden	tjbrown@rochester.rr.com
Pete Fournia	W2SKY	Penfield	pfournia@gmail.com
Bill Hopkins	AA2YV	Brighton	whopkin4@naz.edu
Bob Karz	K2OID	Webster	rkarz@rochester.rr.com
Joe Rowe	AG2Y	Webster	ag2y@rochester.rr.com
Harry Williams	KF2TV	Kingsland, GA	harryw7872@gmail.com

DOWN THE RABBIT HOLE PART II AN EASY FIX — HARD TO GET TO

SCOTT THEIS, W2LW

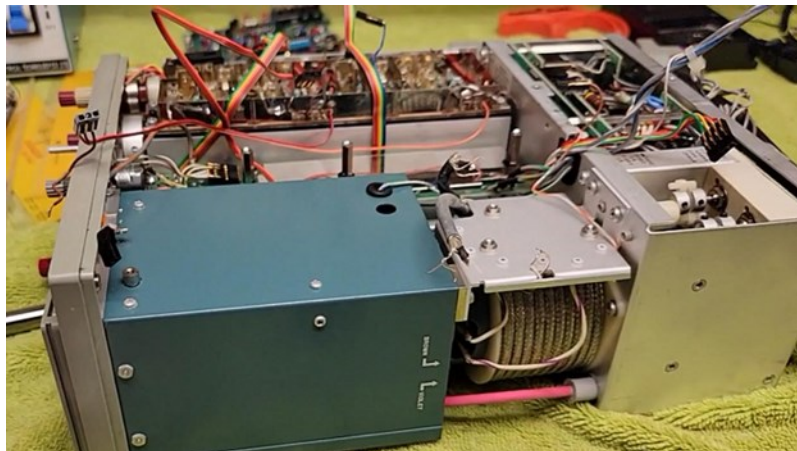
Whether tearing down an engine or doing a deep fix on an appliance or a project like this, I always worry — did I forget something? Or mess something up on reassembly? It can be mighty disappointing after all kinds of effort to have the result fail and realize you'll be hashing through a rework. Nervousness aside, let's get started.

We left off in the last article with the replacement 10K trig pot installed on the front panel.



How We Got Here

So, to get to the above picture, there was a fair amount of disassembly — too much in fact — and the removal of the vertical amplifier board. Basically, a couple of hours of careful work. I am now left with this:

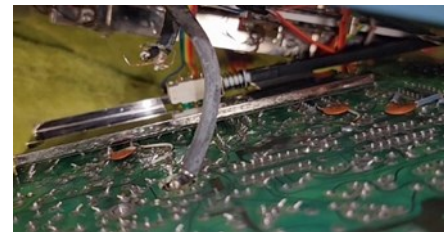
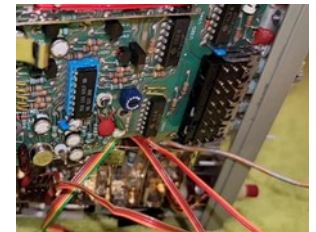


Reinstalling the Vertical Amp Board

With a lot of connectors and wires to solder, the first thing to do was to make sure all the wires were positioned in a manner as to not interfere with the insertion of the board:



I then inserted the board front first and started to make sure every wire was free and in position by tucking in the channel selector and mode switches. One would think that because it slid out easily, that it would slide back in just as easily. Not quite, it took a little jiggling and adjusting. Once I was satisfied nothing was smushed, it was time to deal with the delay line and the other bottom feed-through connections



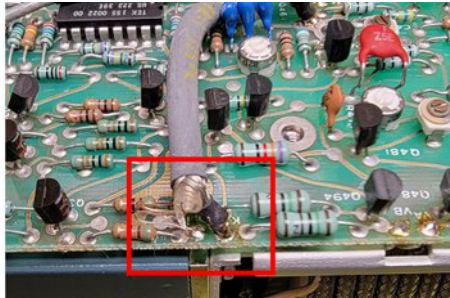
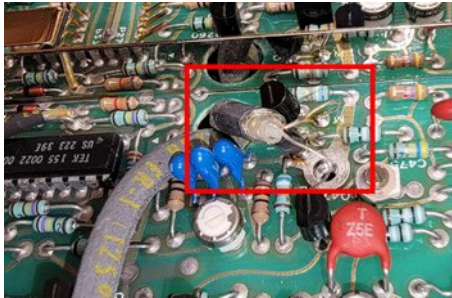
The delay line concerned me a bit since the leads looked rather delicate. Which line was which was easy to determine by length, but the holes in the circuit board were a bit tight, and I had no desire to have to dress the end of



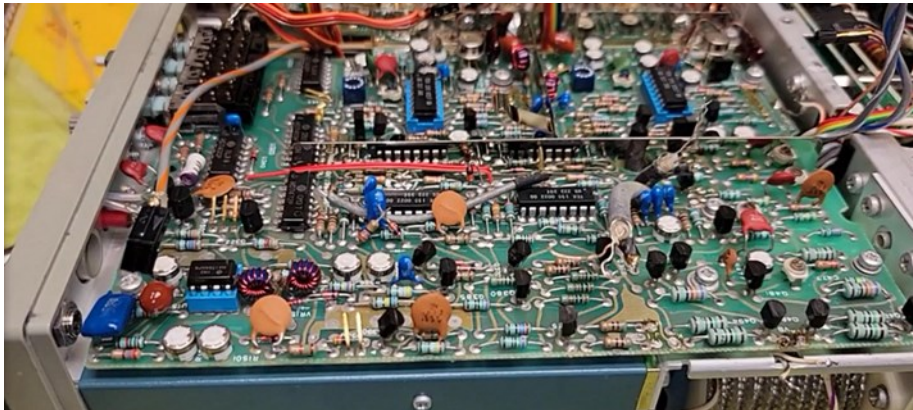
the cables in the event of damage. So, I carefully fed them through and inspected the top side. In addition, there were two short wire connections, probably vertical electrostatic deflection plates, that had been serviced by someone in the past leaving a bit of a mess on the board. Being kind to the PCB was important.



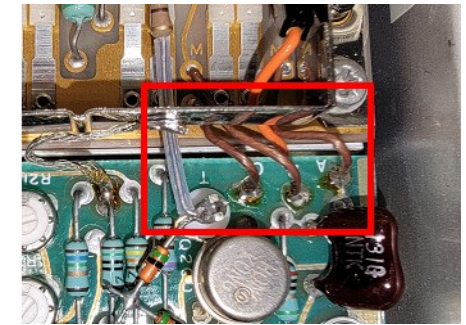
Time to make sure everything cleared in the rear prior to soldering. Once again, I reviewed all the connections to be made and verified that there were no orphan or missing wires. An orphan would mean a wire was not in the correct location. Next was to solder the challenging connections .



With all that done, I settled the board into position and inserted the screws — a major milestone:



Now a lot more soldering, routing wires and inserting connectors, including the connections from the attenuator board:

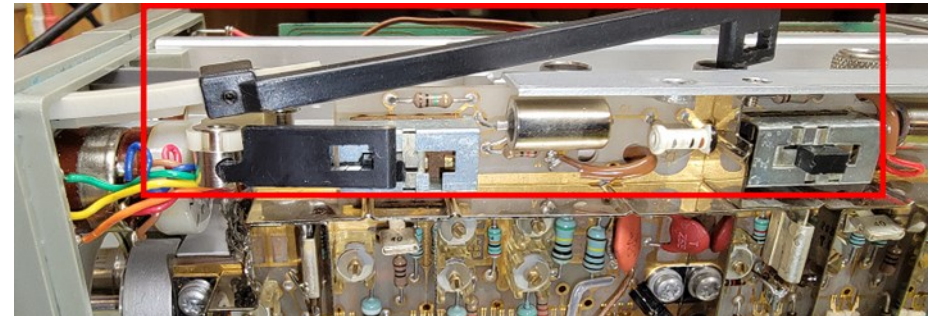


Make-Work

When I started the project, I had this hope that I could pull the front panel away enough to sneak the trig pot in and out without engaging in a bunch of soldering work. It is not that I am afraid to solder, it is just that every severed connection is a potential problem.



And... I over disassembled. I had removed the rather complex attenuator knob assembly and disconnected the mechanical switches for the channel "AC/Gnd/DC" controls.



As such there was another 30-45 minutes of messing around which turned out to be make-work. Fortunately, the switches were easy, and the complex concentric attenuator knob went back together with just a little fuss.

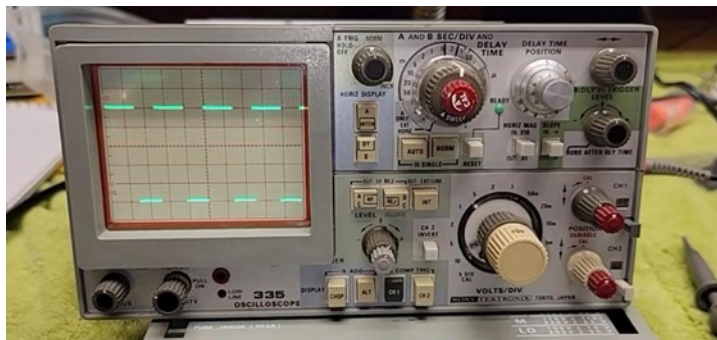
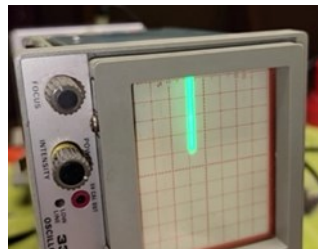
Testing

After completing the final inspection, I really did not see a need to perform a slow power up since the scope was working (less the trigger) prior to the repair work and I had reasonable confidence in my reassembly work. So, power on — a quick check for smoke and abnormal sounds or other quirks. None. I had not reconnected the power LED so I could not rely on that as an indication that the scope was powered up. And....

... nothing. Not too surprising given how many knobs had gotten twisted during the repair process. I slowly brought the intensity control up to max. On some scopes, this will partly illuminate the screen from overzealous electrons scattering from the high intensity beam. But nothing. I checked that the trig was on auto and that the horizontal time base/sweep was something reasonable. Still nothing...

This scope does not have a beam finder, so I was left with not being sure if there was something wrong or just settings mucked up. After centering the vertical position on both channels, I moved the horizontal and finally got an out of focus trace. This was a relief and I quickly focused and positioned the trace.

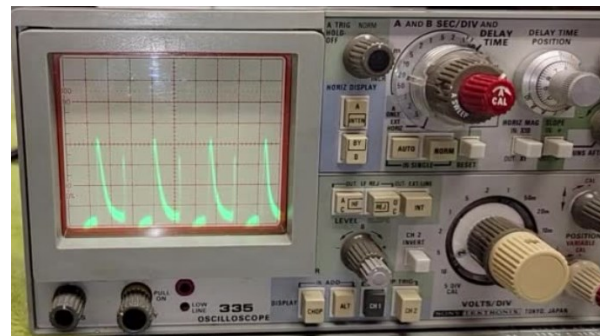
Next was to apply the “Cal” signal on each of the channels. This scope has a “Cal” position directly on the attenuator switch, which is nice. This presented part of a square waved jumping around. Adjusting the newly installed trigger stabilized the image.



So, success? Channel 2 “Cal” also worked in “Alt” (alternating sweep) and “Chop” (flips quickly between channels). (This scope, like most of this era, has only one beam so showing more than one channel requires logic and circuitry to essentially fool you into thinking two channels are being simultaneously displayed.) The trig flipped the edge polarity and adjusted to the wave form.

ID-10-T Error

Prior to reassembling the case, I decided to test the actual inputs. This is where I ran into a problem: I could not get channel 1 to read a waveform outside of the “Cal” setting on the attenuator knob. I went back and forth playing with the connections and the best I could get was noise at the highest input setting (not sure where this comes from, no case, poor shielding?):



After a bit of panic of facing some diagnostic work, I realized that the push/pull switch for the input was straddling “DC” to “Gnd” ... dumb. Switched to “DC” and all was good:



Overall, it was a fun experience and a success. I once again have a general-purpose scope that I can now use on my antique radio projects. A bit fitting, since this unit is pushing 50-years old. I can't help thinking that the chip on the trig knob was from someone trying to pry the knob off and breaking the shaft. So, in the end I did get it working and I also got the shaft, to be thrown in the electronics recycle bin.

* * * * *

LASER ENGRAVER / CUTTER

FOREST SHICK, WA2MZG

I recently purchased a laser engraver / cutter. I have experienced what I can make with my 3D printer and now was wondering what I could do with a laser. Could I make a box for a receiver or design a wooden straight key or even a game for the grandkids?

I had been looking at laser engraver / cutters for more than 6 months and finally decided to make the purchase.

I chose the Creality Falcon 10W because I have had good results with my Creality 3V2 3D printer.

There are many, many brands, and models of lasers available but I knew, firsthand, the quality of a Creality device. Of course, you should do your own research if you decide to buy a laser cutter.

Safety

As I was reviewing the models and accessories, I began to understand the necessity of including safety in the process. There are many safety issues to think about when you are considering buying and using a laser engraver / cutter.

Safety should be your number 1 concern. The laser not only cuts and engraves, but it can also blind and burn.

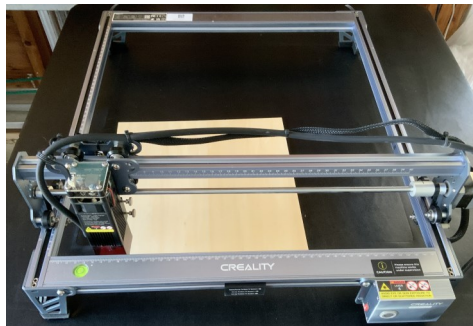
How and where you are going to use the laser are major considerations. Fire prevention and protection, eye protection, smoke removal, etc. are other concerns.

Work Surface

For this article, let's consider wood as the raw material. If your laser is sitting directly on a table, which would be normal and you place a piece of wood to be cut on the table, the laser will not only cut the wood but whatever is under the wood (depending on the power of the laser). If the table surface is wood, you might etch your design into the tabletop. If your table has a metal top, then you are likely to get reflection of the laser beam into the back surface of the wood or off to the side where it might be harmful to you or others nearby.



3D Printed Projects
Paddle, Microphone, AF Sig Gen

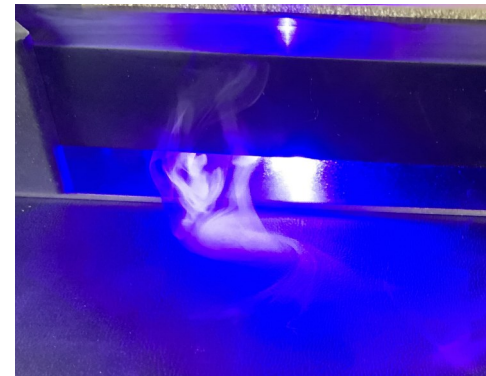


Laser and wood sitting on a card table

This is easily remedied with a honeycomb laser bed. The model I purchased came with an aluminum back plate. It protects the tabletop, the rear surface of your wood and helps lessen reflections – it doesn't prevent reflections.

Smoke

Whether you are engraving or cutting with your laser, you are burning the wood. You get smoke as a byproduct. If you are cutting, you get lots of smoke. A fan is a good first layer of protection, but you still end up with a lot of smoke in your immediate area.

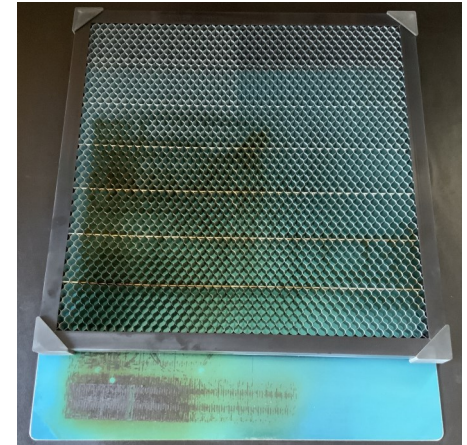


Smoke From Under the
Honeycomb Bed

Just a note: many of the units I looked at come with safety glasses. That's great for one person but if family or friends want to see the process – the housing seems to be the better solution.

Reflections

The low cost laser cutter engraver is typically an open frame, see the picture to the left. Usually, a shield is provided around the laser which is a significant help in eliminating the possibility of looking directly into the laser beam, notice the red shield in the picture on the next page. You still have the possibility of reflections and viewing the laser through the frame of the device. In the picture you can see the laser beam between the shield and the wood and also the reflection from the aluminum plate. Notice the open frame design of the laser system. The housing mentioned above minimizes those concerns.

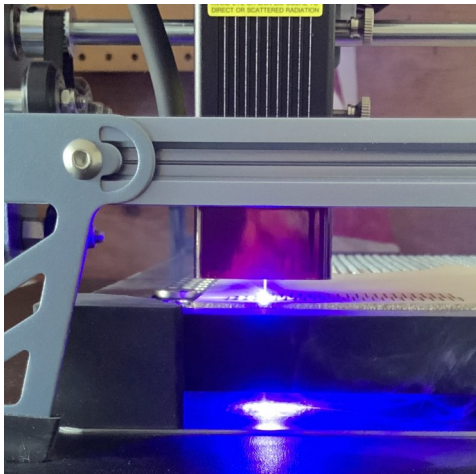


Honeycomb bed with an
aluminum back plate

There are housings for the lasers that have vent fans and tubing to direct the smoke away – you still need to connect the tubing to an opening to the great outdoors. Another feature of these housing is they provide protective windows so you may watch the laser work without fear of hurting yourself, especially your eyes.



Housing and Vent Hose



Laser Beam and Reflection

Another accessory that helps reduce the fire possibility is a device that blows air in parallel with the laser beam. This removes the smoke from the immediate area of the laser and lowers the temperature of the adjacent surface as the beam moves along its path.

The heat and smoke cause staining on the surface of the wood you are working on. Another benefit of this device is that it mitigates some of the smoke and heat damage. The top 2 coins were cut without the air assist. The bottom 2 with air assist. A side effect is that the engraving is a bit lighter so you will need to increase the laser power.

Fire

Since you will be burning wood, fire is a significant possibility. My first engraving, not the sample provided with the laser, almost started to burn. I saw sparks flying out from under the laser and quickly turned everything off. The issue was that the laser was at full power (10W) and moving across the wood too slow.

A fire extinguisher seems like a reasonable purchase.



Notice the staining on the top 2 coins vs the bottom 2

Accessories

There are a variety of brands and accessories available. I will list my accessories, but it is up to you to do the research to find what fits your needs. I purchased everything through Amazon and all the accessories are from Creality except the wood..

- Creality Falcon 10W Laser
- Creality Honeycomb Work Table
- Creality Air Assist Kit
- Creality Laser Engraver Enclosure
- 12 Pack Basswood Sheets 1/8 x 12 x 12 inches

Software

There are 2 major programs available, and each have sufficient YouTube videos for learning, problem solving and to just get ideas. I have discovered there are

other programs but at this time I am not inclined to do any research into the other programs - I have something that works for me.

Laser GRBL

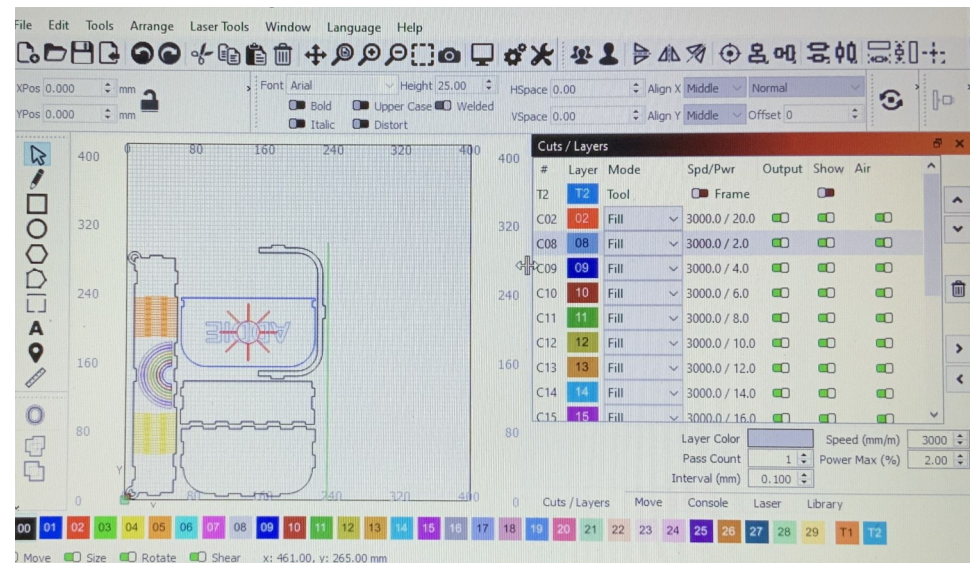
A very simple, free program. It is not very useful for designing but is a good way to try out your new laser engraver cutter. I used it for 1 day and then moved on. Just search YouTube for Laser GRBL learning and you will be ready to go.

<https://lasergrbl.com/>

Lightburn

Not exactly a design tool like Fusion 360 but it is very capable. It has definitely forced me into a new mindset for designing. Basically, you design using shapes: square, circle, polygon, etc. Then you modify to create your design.

<https://lightburnsoftware.com/>



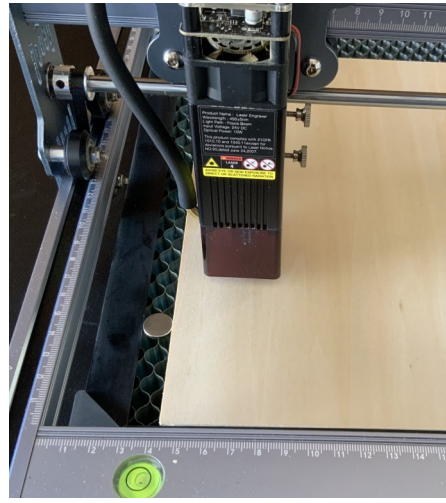
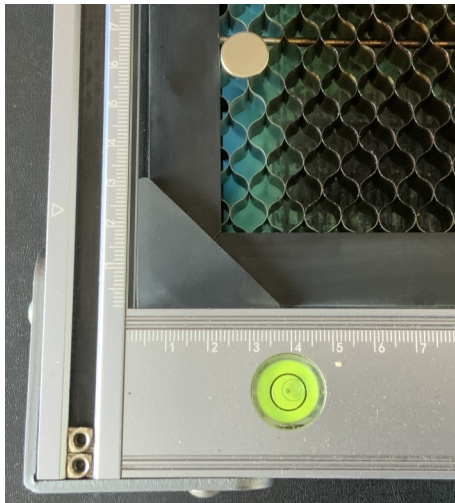
Tidbits

There was not much involved in assembling my laser. Creality provided a video that was helpful. It may have taken 30 minutes to assemble.

After building a 3D printer, I was ready for calibrating the work space - there is no calibration.

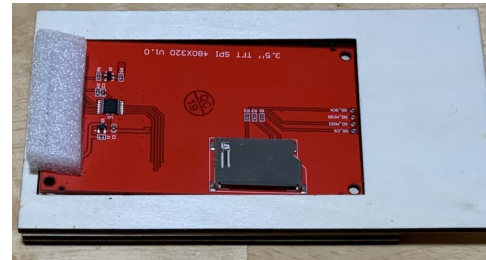
If you have honeycomb work bed, be sure to visually align the edges with the X and Y axis of the laser. The Creality has scales on the X and Y axis and a bubble to indicate level. They are mostly meaningless - good for reference. For example, home position of the laser is NOT 0, 0 it is closer to 3.5, 4 mm.

You will quickly get used to the ambiguity and learn how to locate your wood, pattern and laser head to produce what you want. Notice the round magnet - this keeps me from locating the wood too close to the honeycombs frame.



tion brings up a web page with a more detailed explanation of the tool.
<https://docs.lightburnsoftware.com/UI/CreationTools.html#rectangle-tool>

Lightburn costs \$60 but you get a free trial for 30 days.



Progress

I have made a few projects to learn from! I did not copy these, but I used the online videos as a resource. If you are like me you try first - read the manual much later. I haven't read the manual yet!



Boxes are for my Granddaughters

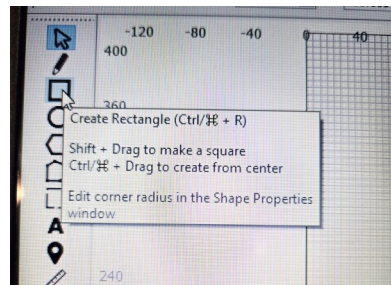
I have started on a design for a box that will hold my projects with the LCD display - similar to the display in the first picture in this article. Also, here is my 1st pass at a wooden straight.

Final Note

There are many great videos creating projects using Lightburn. Even if you aren't interested in the project, they are a worthwhile resource. Take notes on the keystrokes, shortcuts and other ideas as they will be extremely helpful.

For example:

Hovering the cursor over a tool icon brings up a useful tool tip. Pressing F1 while in this posi



Resources for Lightburn

- The Louisiana Hobby Guy
- Vintauri
- Lightburn Software
- The Tinkerverse
- Middle Room Workshop
- Steve Makes Everything
- Desktop Makes
- Computer Creationz

METEOR DETECTION VIA RADIO

MARTIN PEPE, MJPASTRO@GMAIL.COM

This article describes a proposed project at RIT in the MSD senior engineering center to design a system to detect meteors in Earth's upper atmosphere. It is based on the principle of passive radar.

Traditionally meteors are detected visually, with ALL the inherent limitations of visual detection in our Western New York environment (weather, cloud cover, light pollution / dark skies, etc.) The proposed method would attempt to break out of those constraints.



For those NOT in the celestial realm, a meteor is usually a piece of a comet, asteroid or planet made of rock or ice, that has been captured by Earth's gravity, and visually presents itself as a streak of light in the night sky. The light is generated from frictional heating, as it enters Earth's atmosphere, usually at high speed. The size of these particles can be a wide range, from a just a grain of sand or rice, up to many tons (*Ask the dinosaurs* :)). Note: a meteorite is a meteor that has survived re-entry and landed .

The method proposed uses the (passive radar) principle of radio beam reflection & detection. By tuning into a distant 'clear channel' commercial FM radio station (88 – 108 MHz) that is over the horizon, beyond the 'line of sight' and undetectable by the local receiver, a meteor's ionized cloud, acts as the reflector to 'bounce' the beam back down to the directional antenna and receiver. The receiver cannot see the transmitter directly, only the reflected signal from the meteor's ionized cloud.

The system would start out looking for meteors during the traditional (known) visual meteor showers, <https://www.amsmeteors.org/meteor-showers/2020-meteor-shower-list/>. Then expand to search for additional (non-visual?) sources.

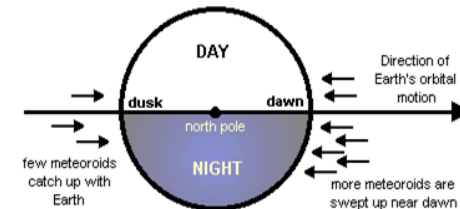
Furthermore, the method proposed would then be automated, since most meteors are detected in the early morning hours, as opposed to traditional nighttime visual observing methods. The reason for this is Earth's forward motion in its

orbit causes the leading, morning edge, to run into the meteor cloud, (for the same reason that bugs stick to your car's windshield & not the rear window).

Principal Meteor Showers			
SHOWER	BEST VIEWING	POINT OF ORIGIN	DATE OF MAXIMUM*
Quadrantid	Predawn	N	Jan. 3-4
Lyrid	Predawn	S	Apr. 21-22
Eta Aquarid	Predawn	SE	May 4-5
Delta Aquarid	Predawn	S	July 29-30
Perseid	Predawn	NE	Aug. 11-13

It is expected that more meteors will be detected this way compared to the traditional visual methods, which are rather limited due to weather, as radio waves 'see' through the clouds.

Installation is proposed to be at the Mees Observatory in Naples, NY (2000' elevation) having a good view of the horizon, away from (city) RF noise sources, and above any buildings or obstructions.



This system would be in support of STEM outreach programs at NASA's JPL Night Sky Network, and Society of Amateur Radio Astronomy (SARA)

It is also expected that the system design will have 'course' corrections during development, and these would occur at the end of each review cycle, based on (newly) discovered data, including input from **ALL** interested parties. We are searching for ham & astronomy 'SMEs' subject matter experts, to act as the team's technical advisors & mentors.

13 COLONIES SPECIAL EVENT

TIM BARRETT, K9VB, RARA VICE PRESIDENT

The 16th annual 13 Colonies Special Event takes place as usual during the week of Independence day, July 1st – July 7th. It's a great opportunity for some radio fun and a celebration of American History. Each year has a different theme and for 2024 it is Militias, Citizen Soldiers and Minute Men.

The idea is to contact special event stations representing each of the original 13 Colonies. For more information, visit [13 Colonies Special Event](#). There is a certificate available if you succeed in contacting one or more of the participating stations.

This is a national event but with an international flavor as there are also bonus stations located in the UK and in France that you can contact. An additional point of interest is that this event has a local connection, it was set up by Ken Villone, KU2US who lives in Conesus and even went to school with two of our past presidents! The stations will almost certainly be spotted on [DX Summit](#) so keep an eye out for when they are on the air and make a call.



JULY 2024 PUBLIC SERVICE REPORT

MIKE MOORE, KC2NM, PUBLIC SERVICE COORDINATOR

Amateur Radio Support for Tour de Cure

On June 8th, the RaRa, Siarc, and Drumlins Amateur Radio Clubs provided communication support for the annual Tour de Cure cycling event benefiting the American Diabetes Association. This year's event took place at a new location, Finger Lakes Community College, with routes ranging from 8 to 63 miles. The first riders departed at 7:00 AM, and all rides concluded by 2:00 PM. A great party with food and live music followed!

Communication Setup

- **Command Center:** Established in a lecture hall at Finger Lakes Community College, adjacent to the ride start / finish line.
- **Primary Communication:** WR2AHL 145.11 repeater with access via an Allstar remote base station.
- **Secondary Communication:** Zello cellular phone app allowing communication with non-ham radio partners West Herr drivers. This worked well.
- Permanent mobile stations were located in the personal ham vehicles, and temporary mobile stations were set up in the West Herr Vehicles. Handheld radios were used at many rest stops.

Event Success

- Riders reported no major problems on the routes.
- Riders were impressed with the scenic beauty of the courses. (Details available on the [Tour de Cure Route Map](#)).
- The call tracking system developed by Galen, K9FGT, efficiently managed service requests.

Additional Points

- 374 riders participated in the event, evenly split among the 4 rides.
- To date, the ride raised \$400,000 for the ADA
- Amateur Radio operators served as SAG and sweep drivers, rest stop communicators, and command center operators.
- The ADA route team expressed great appreciation for the way that the SAGS and sweeps cared for the riders, staying with a rider until situations were resolved.

The success of the event resulted from the work of 29 Ham participants (AB2OY, AD2DB, K2DCO, K2MTV, K4GWA, K5DOC, K5KHK, K9FGT, KA1CNF, KB1POP, KB2FSB, KB2NCI, KC1QCI, KC2KNJ, KC2NM, KC2UES, KD2DNO, KD2TWM, KD2UJC, N2IZV, W2COP, W2ODD, W2SBA, W2SKY, W2SUZ, WA2FTV, WB2GFZ, WB2GGM, WB2VM). Thank you all for participating.



2024 Tour de Cure Command Center



Start Line for the 40 mile ride

Fairport Liftbridge Regata Cancellation

This year's lift bridge regatta, scheduled for Saturday, September 21, is canceled. The Fairport Crew Club board did not think it had enough people to draw from to obtain the 105 volunteers necessary to carry it out. They'll try again next year.

Pumpkin Patrol Request from Ed, K1EM

HELP WANTED for Pumpkin Patrol: This 80-something coordinator is looking for at least one person to cover each of the 16 Thruway overpasses in Monroe County, one East Side (Overpasses 1 thru 9A) Goodie Patrol person, at least three volunteers to handle RDF on our Interference source, and a replacement for me. Last year, we had a grand total of 28 volunteers over the two evenings. Our minimum is 19. Please consider volunteering for the Safety of the Driving Public and the NY State Police.

The remainder of this years public service events are detailed in the table to the right. Consider signing up for an event at <https://rochesterham.org>.

2024 RARA July List of Public Service Events

Event	Location	Day	Date
MS Roc the Ride Great Lakes Adventure	Lakeside Beach State Park	Saturday	August 10, 2024
Mammoth March Upstate NY	Letchwork Park	Saturday	August 10, 2024
ILLW	Charlotte-Genesee Lighthouse	Saturday and Sunday	August 17-18, 2024
Wilmot Breakaway Ride	Xerox Campus - Webster, NY	Sunday	Sept 22, 2024
JOTA / Ham Radio Demonstration - CTC	Camp Cutler, Na- ples, NY	Saturday	Oct. 19, 2024
Pumpkin Patrol	Overpasses of the New York State Thruway	Wednesday and Thursday	Oct. 30-31, 2024

INTERNATIONAL LIGHTHOUSE AND LIGHTSHIP WEEKEND AT CHARLOTTE BEACH

GEORGE ADAMS, K4GWA, 2024 ILLW HOST



Here is a great combination ... Ham Radio and Lighthouses! Do you like both or maybe interested in lighthouses? Do you want to join a global event that celebrates the heritage and importance of these maritime beacons? If so, you won't want to miss the annual *International Lighthouse and Lightship Weekend (ILLW)* on **August 17th and 18th from 10AM-5PM**, celebrated right here in Rochester in Charlotte, one of Rochester's great destinations! The ILLW is one of the most popular international amateur radio events in existence, attracting over 500 lighthouse entries from over 40 countries every year. It is not a contest, but a fun and friendly way to make contact with other ham radio operators around the world who share a passion, fondness or interests in lighthouses.

This year, you have a chance to participate in the ILLW at the *Charlotte-Genesee Lighthouse* in Rochester, NY. This historic lighthouse was built in 1822 and is the oldest active lighthouse on Lake Ontario. It is also a museum and a landmark that offers stunning views of the lake and the city.

The Rochester Amateur Radio Association will be hosting the event and providing radios, antennas, and operators for anyone who wants to join in. You can operate on any authorized band or mode you prefer. You can also enjoy a tour of the lighthouse and learn about its history and significance. If you've been in the past, come back to meet old friends, make new ones and chew the rag. Our summer months are short but this event is memorable.

But that's not all! The Charlotte-Genesee Lighthouse is located at the Charlotte Beach, which is a popular destination for recreation and relaxation. You can enjoy the sandy beach, the cool breeze, and the beautiful scenery.

You can also find plenty of activities and attractions nearby, such as:

- The Ontario Beach Park, which features a carousel, a playground, a picnic area, and a performance pavilion.
- The Port of Rochester Terminal Building, which houses restaurants, shops, and a visitor center.
- The Charlotte-Genesee Lighthouse Historical Society, which offers exhibits and programs on the history of the lighthouse and the area.
- The Abbott's Frozen Custard, which serves delicious ice cream and other treats.

So what are you waiting for? Mark your calendar and plan your trip to the Charlotte-Genesee Lighthouse for the ILLW weekend. You will have a blast operating from this unique location, making new friends, and exploring the beach. Don't miss this opportunity to be part of a worldwide event that celebrates lighthouses and ham radio!

For more information about the ILLW, visit <http://www.rochesterham.org>, <https://illw.net/> or <https://www.lighthouse-weekend.international/>. For more



2024 RARA June Cruise Night - Review

TIM GUYOT, KB1POP, DIRECTOR

What a great evening! Thanks to all who came!

In early spring when we determined we wouldn't be having a hamfest, the Board thought it would be nice to do something as a casual June event. Tim Barrett K9VB said that he had recalled a RARA cruise night several years back and that it was enjoyable and well attended. The Board immediately thought this would be a good fit. Since the last one wasn't in most of our recent memories, we weren't sure what to expect...

Well, I don't think we could have asked for a better re-introduction to RARA Cruise Night. The weather was perfect. We had at least 10 cars with mobile installations and almost as many classics. Both categories were cause for conversation, whether it be about the cars or the radios.

Like most of our meetings, we had a drawing. Instead of a raffle, it was for best mobile installation, which went to Chris Cianflone, W2RTO for his Jeep. Not only does he have an excellent mobile radio installation, his power-management including solar and battery isolation was also on display.

We were all happy with the success of the event, and even when the Hamfest is back next year, we'll find a time to do this again. Maybe we'll have a classic with a mobile??

Once again, thanks for coming; and if you didn't attend, we hope to see you for the next one



The Winner: Chris Cianflone, W2RTO



RARA CALENDAR

TIM BARRETT, K9VB, MEMBERSHIP SECRETARY

July 2024						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB RAC Canada Day Contest ICWC Medium Speed Test OK1WC Memorial WW Sideband Activity Contest ARS Spartan Sprint RSGB Club 80M Contest,CW	2 JS8 Group 14.078 MHz, 9pm ZL Sprint Phone Weekly Test	3 ROC City Net ~3.830 MHz, 7p A1 Club AWT CWOps Test VHF/UHF FT8 Activity Contest Mini Test 40, 80 Walk for the Bacon Contest	4 RARA BoD Mtg 6:30pm ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.205 USB NRAU 10m Activity Contest NCCC FT4 Sprint SKCC Sprint (Europe) Weekly RTTY Test	5 K1USN Speed Test	6 ROC City Net 28.405 MHz, 9pm Venezuelan Ind. Day Contest NZART Memorial Contest Marconi HF Contest Original QRP Contest DL-DX RTTY Contest PODXS 070 40M Sprint
7 NZART Memorial Contest Marconi HF Contest Original QRP Contest DL-DX RTTY Contest PODXS 070 40M Sprint	8 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB ICWC Medium Speed Test OK1WC Memorial WW Sideband Activity Contest	9 JS8 Group 14.078 MHz, 9pm ZL Sprint DARC RTTY Sprint Phone Weekly Test	10 ROC City Net ~3.830 MHz, 7p A1 Club AWT CWOps Test VHF/UHF FT8 Activity Contest Mini Test 40, 80 RSGB Club 80M Contest, SSB	11 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.205 USB NCCC FT4 Sprint QRP Foxhunt Weekly RTTY Test	12 K1USN Speed Test	13 ROC City Net 28.405 MHz, 9pm IARU HF World Championship SKCC Sprint Marathon RAGS Hamfest, Camillus NY
14 IARU HF World Championship SKCC Sprint Marathon	15 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB ICWC Medium Speed Test OK1WC Memorial WW Sideband Activity Contest RSGB FT4 Contest	16 JS8 Group 14.078 MHz, 9pm ZL Sprint Phone Weekly Test	17 ROC City Net ~3.830 MHz, 7p A1 Club AWT CWOps Test VHF/UHF FT8 Activity Contest Mini Test 40, 80 Walk for the Bacon Contest NAQCC CW Sprint	18 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.205 USB NTC QSO Party NCCC Sprint NCCC FT4 Sprint Weekly RTTY Test	19 K1USN Speed Test	20 ROC City Net 28.405 MHz, 9pm Batavia Hamfest, Alexander IARU Region 1 70 MHz Contest NA QSO Party, RTTY CQ Worldwide VHF Contest LABRE DX Contest Maidenhead Mayhem Contest
21 IARU Region 1 70 MHz Contest NA QSO Party, RTTY CQ Worldwide VHF Contest LABRE DX Contest Maidenhead Mayhem Contest	22 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB ICWC Medium Speed Test OK1WC Memorial WW Sideband Activity Contest Maidenhead Mayhem Contest	23 JS8 Group 14.078 MHz, 9pm ZL Sprint Phone Weekly Test SKCC Sprint Maidenhead Mayhem Contest	24 ROC City Net ~3.830 MHz, 7p A1 Club AWT CWOps Test VHF/UHF FT8 Activity Contest Mini Test 40, 80m Maidenhead Mayhem Contest	25 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.205 USB QRP Foxhunt NCCC Sprint NCCC FT4 Sprint Weekly RTTY Test RSGB Club 80M Contest, Data Maidenhead Mayhem Contest	26 K1USN Speed Test Maidenhead Mayhem Contest	27 ROC City Net 28.405 MHz, 9pm Maidenhead Mayhem Contest RARA Picnic, Mendon Ponds MARAC US Counties QSO Pty ARAM 50MHz Contest AL QSO Party RSGB IOTA Contest
28 Maidenhead Mayhem Contest MARAC US Counties QSO Pty ARAM 50MHz Contest AL QSO Party RSGB IOTA Contes ARS flight of the Bumblebees	29 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB ICWC Medium Speed Test OK1WC Memorial WW Sideband Activity Contest QCX Challenge	30 JS8 Group 14.078 MHz, 9pm ZL Sprint Phone Weekly Test	31 ROC City Net ~3.830 MHz, 7p A1 Club AWT CWOps Test VHF/UHF FT8 Activity Contest Mini Test 40, 80 Walk for the Bacon Contest			

VE TEAM

Testing takes place on the 3rd Saturday September - April

Testing will resume on September 21

Testing Location

RIT
Rochester Institute of Technology
Building 16 -Schmitt Interfaith Center
43.08402626755475, -77.6734520379509

- Easiest path is from Parking Lot D it can be accessed from West Jefferson Rd via Andrews Memorial Dr or Lowenthal Rd
- From parking lot D walk south up the ramp to the Schmitt Interfaith Center.
- Once inside there is an elevator over to your left or stairs in front of you. Go to the first floor and you will find the Skalny room.

Please Note: this room cannot be accessed from the door under the bridge.

Pre-registration is required visit:

<https://hamstudy.org/sessions/14612/inperson> to find the latest session.

More information is available on the RARA website:

https://rochesterham.org/license_testing.htm

Applicants must supply their own pen, pencil, calculator

Testing begins at 10:00AM.

Also Note: The exam is free however the FCC now charges \$35 for applications. This fee is NOT paid to the VE team. It is paid directly to the FCC. You will receive an email from the FCC when your application is processed. We will also have an information sheet available

NEWS FROM AREA CLUBS

MONROE COUNTY ARES / RACES NEWS

Monroe County Amateur Radio Emergency Service (ARES)® is an amateur radio public service organization based in Monroe County, New York, and is open to all licensed amateur radio operators. Monroe County Radio Amateur Civil Emergency Service (RACES) is a program of the Monroe County Office of Emergency Management. We participate in training and emergency exercises so that we can serve other agencies during times of communication failure.



The Monroe County Amateur Radio Emergency Service, Inc. holds its meetings on the fourth Thursday of each month except in July, August, November and December. The meeting in November is on the third Thursday to avoid interfering with Thanksgiving. Anyone interested, members and non-members, are welcome to attend. The meetings are in person at 6:00 PM at the county EOC in even months and at the Red Cross in odd months. They are also available via Zoom. Please check our website for any schedule changes. Prospective members can request an invitation by email to:

secretary@monroecountyemcomm.org.

Monroe County ARES/RACES meets on the air every Thursday of the month at 7:00 PM, on the W2ARM 146.61 MHz (-) 110.9 Hz PL and 444.45 MHz (+) 110.9 Hz PL repeaters. Our club callsign is WB2EOC. On nights when we hold our regular meeting, the net is at 5:30 PM.

Web: www.monroecountyemcomm.org

Facebook: Monroe County Amateur Radio Emergency Service, Inc.

Twitter @MCARESNY

ROCHESTER DX ASSOCIATION, RDXA



NEXT MEETING: TUESDAY 18 JUNE, 7:00PM

LOCATION: JOHNNY'S, 1382 CULVER RD

PROGRAM—N2RD (RAJ) MULTIBAND RECEIVE ANTENNA ARRAY OF VERTICALS WITH NO RADIALS

Go to RDXA.COM for additional information

XRX AMATEUR RADIO CLUB

The XRX Amateur Radio Club meets the second Thursday of the month (except July and August). 7PM at the Webster Recreation Center. Zoom meeting info, when available, is sent out to our mailing list. How to subscribe and up-to-date information is always on our website at <http://xarc.us> We have a System Fusion repeater south of the city on 145.290, and another on 444.825 west of the city that is also D-Star capable. Both are also analog capable with 110.9Hz tone. All are welcome.

AMATEUR RADIO ASSOCIATION OF THE SOUTHERN TIER, ARAST

LOOK FOR US AS W2ZJ ON FIELD DAY 2024, OR BETTER YET, VISIT US ON HARRIS HILL IN BIG FLATS NEXT TO THE GLIDER FIELD!

ARAST meets the third Thursday of every month at the Emergency Communications Center on Harris Hill in Big Flats, next to the National Soaring Museum. Our Chemung County ARES (CCARES) organization meets the first Tuesday of the month except February at the same location. Both organizations serve amateurs in Chemung, Steuben and Schuyler counties in New York and Bradford and Tioga counties in Pennsylvania. All are welcome to attend our meetings.

NOTE: Both CCARES and ARAST monthly meetings are now being held both in person and online. Check out the Upcoming Events at our website, www.arast.info, for the latest details.

Don't forget to check out our repeaters when you visit the area. N3AQ 147.36(+) and the W2ZJ 146.70(-) are the principal 2-meter repeaters. The latter can also be accessed via Echolink node 574415 with the call sign KD2QND-R. A full list of repeaters that can be heard in the Twin Tiers area surrounding Chemung County can be found at

http://www.arast.info/arast_website/public/repeaters.php.

We also invite you to check out our new 6-meter net on Wednesday evenings at 9 p.m. local time on 50.200 MHz USB. The net usually lasts approximately one hour. Operators are encouraged to check in and participate in the round table discussions or simply stop by from time to time. We would welcome participation from RARA members.

COMMUNITY AMATEUR RADIO CLUB, CARC

If you are interested in being a part of this forward thinking and active club, visit us at a meeting or join us on one of our weekly nets. We meet at the Hoag Library (134 S. Main St. Albion, NY) on the first Saturday of each month at 7PM. Each meeting has a brief training/refresher period with upcoming topics including: net protocol, repeater set-up/maintenance, and digital signaling. The club holds a net every Sunday evening at 8pm (winter) and 9PM (summer) - 0100 UTC Monday - on 147.585 simplex, and we host the Thursday Night Social Net, Thursday at 8:30PM on 147.285+. We'd love to hear you check-in!

DRUMLINS AMATEUR RADIO CLUB

The Drumlins Amateur Radio Club meets every third Wednesday of the month at 7:30 PM at the Wayne County EMO/Sheriff's Office 7376 State Hwy 31 #1000, Lyons, NY 14489. Doors open at 7 pm, meeting starts at 7:30 pm. Announcements will be made on the 146.685 repeater. The Drumlins ARC website address is <http://drumlinsarc.us/>

DIGITAL COMMUNICATIONS ASSOCIATION OF PERINTON, DCAP

DCAP members continue to experiment with leading edge digital communication modes. We were formed in 1994 to foster the development of local and regional packet radio networks using AX25 and TCP/IP. Today we have members using the club sponsored DSTAR repeater (KB2VZS on 444.8MHz), several personal and publicly accessible DSTAR hotspots, Yaesu System Fusion systems on non-club repeaters and DMR systems through repeaters and personal hotspots. DCAP members meet for breakfast at 7AM nearly every Saturday morning at Riki's Family Restaurant in the village of Fairport and everyone is welcome to join us. Talk in is on the KB2VZS analog repeater on 146.715MHz with a PL tone of 110.9Hz.

KEUKA LAKE AMATEUR RADIO ASSOCIATION, KLARA

The Keuka Lake Amateur Radio Association Hamfest is August 17th, "Friendliest little Hamfest around." See flyer on page 27.

Door Prizes

- Certificate for N3FJP's Amateur Radio Software
- Certificates from Alpha Antenna (\$50)
- Certificates from ARRL
- Ham Radio Theme T-shirts
- ARRL Shopping Bags

Grand Prize: NanoVNA handheld Vector Network Analyzer (VNA)

Our meetings are always the 2nd Wednesday. Dish to pass meal at 6pm with meeting at 7pm. All are welcome.

Don't forget our daily Monday thru Friday 75 meter HF net. Check in at 7:45am starts 8:00 am on 3.896. Always a great way to start your day.

73,
Belinda KD2BPJ

ORLEANS COUNTY AMATEUR RADIO CLUB

The Orleans County ARC meets every 2nd Monday of the month at the Orleans County Emergency Operations Center, 14064 West County House Road, Albion, NY 14411. Doors open at 6:00PM, meeting starts at 7:30PM. Anyone with an interest in amateur radio is welcome. Program topics vary from month to month.

The club has an open two-meter net every Tuesday night at 9:00PM local time on the club repeater, WA2DQL/R (145.27 -600KHz offset, 141.3 tone). Everyone is welcome to check in.

See the club website <http://ocarc.us> or contact club Secretary Ron Craig, N5BNO for more information.

ROCHESTER VHF GROUP

You are invited to
join us on-line &
on-the-air! We're
here to help you to
use the license that
you worked so hard to get.



Check out what we do by visiting our
website at <http://RVHFG.org> to start.

Join our e-mail group by sending a message
to RVHFG+subscribe@groups.io.

Join our weekly on-the-air nets on SSB:
2 meter band - Monday 9 PM 144.260 USB
6 meter band - Thursday 9 PM 50.205 USB

No VHF SSB radio (yet) to join the nets?
Log-in to Echolink [ka2ene-L #23426](#)

We can help to answer the question, "What radio should I buy?" Here's a list of HF+++ radios, those with the HF bands and at least three VHF bands, giving you access to all sorts of VHF fun. Research each one to see which serves you best. Ask questions on our email list. We're here to help!

Yaesu FT-100D	Yaesu FT-817	Yaesu FT-818
Yaesu FT-847	Yaesu FT-857	Yaesu FT-897
Icom IC-706MKIIG	Icom IC-7000	Icom IC-7100
Icom IC-9100	Kenwood TS-2000	

Some are older models and some are newer models, but all provide access to the 6 meter, 2 meter, and 70 centimeter bands using both traditional FM and the exciting narrow-band SSB mode that supports unexpectedly long-distance (100's of km's routinely and 1,000's of km occasionally) VHF communication. These are good all-around radios no matter what club you end up affiliating with later. We hope its us.

SKENOH ISLAND AMATEUR RADIO CLUB, SIARC

The Skenoh Island Amateur Radio Club and meets every second Wednesday of the month at 7:30PM at the Ontario County Safety Training Facility, 2914 County Road 48, Town of Hopewell. We have License Exam Testing every other month which begins at 6:30PM. The next meeting will be on Wednesday, July 10th. There will be VE testing in July.

SIARC is also holding a Health and Welfare NET Monday through Friday each week at 2000 hours on the SIARC 146.820 repeater (located in Canandaigua, NY), Tone 110.9. This net is to pass along general information and keep hams in touch. All hams are invited to participate.

73's
Steve Benton
WB2VMR

ROCHESTER RADIO REPEATER ASSOCIATION

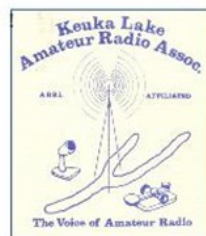
The current club officers are Bob Odell, N2BZX - President, Bob Shewell, N2HJD - Vice President, Jay Stewart, W4JPS - Secretary, and Jerry Powell, KC2YSY - Treasurer / Membership Chairman. RRRA also accepts donations to the club. If you are not currently a member and want to support RRRA, you can join at our monthly meeting or on our web site using PayPal. www.k2rra.org

THE AMATEUR'S CODE

Originally written by Paul M. Segal, W9EEA (1928)

THE RADIO AMATEUR IS:

CONSIDERATE	Never knowingly operating in such a way as to lessen the pleasure of others.
LOYAL	Offering loyalty, encouragement and support to other amateurs, local club, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.
PROGRESSIVE	With knowledge abreast of science, a well built and efficient station and operation beyond reproach.
FRIENDLY	With slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.
BALANCED	Radio is an avocation, never interfering with duties owed to family, job, school or community.
PATRIOTIC	With station and skill always ready for service to country and community.



16th Annual
Keuka Lake Amateur Radio Association

HAMFEST

Saturday, August 17, 2024 Howard, NY

Just off I-86 at Exit 35



follow signs to the Howard Community Center

Special instructions for GPS users:

Some GPS systems will recognize 7481 Hopkins Rd., Howard, NY.
Since Howard, NY does not have a post office or ZIP Code,
some GPS systems will require 7481 Hopkins Rd., Avoca, NY 14809.
Or use coordinates 42.3618,-77.510.

Talk-In
on the KLARA
Repeater System

145.190 — Bath, NY
147.045 + Arkport, NY
147.330 + Cameron, NY
PL 110.9

**Admission
and
Breakfast**

\$5.00 admission includes
one outdoor flea market
space or one indoor table
space. Also available is a
full breakfast with eggs and
pancakes.
Never ending coffee!



Friday Night Camping

Join us for free on-site overnight camping.
Self contained camping units only.
No electric. No water.
Yes, an enjoyable evening with very friendly hams.

Campers Must RSVP
keukalakeara@gmail.com



KLARA/ARRL Testing

10:00am - a perfect time
to get your Ham Radio License
or upgrade to General or Extra

Visit us on Facebook:
Keuka Lake Amateur Radio Association
Visit us on the web:
klara.us
Contact us at:
keukalakeara@gmail.com

Hamfest Schedule

7:00 Vendor Admission
7:30 Open to the Public
8:00 Breakfast Begins
8:30 1st Door Prize Drawing
9:00 2nd Door Prize Drawing
9:30 3rd Door Prize Drawing
10:00 4th Door Prize Drawing
10:00 VE Testing
10:30 5th Door Prize Drawing
11:00 50-50 Drawing and
More Door Prizes

Must be present to win



AWA Educational Institute

2024 Hands-On Classes

Learn It, Build It, Fix It

Vacuum Tube Radio101 Boot Camp **Sunday-Tuesday 9/29-10/1**

Solid State Audio Theory **3 Saturdays Starting 10/12**

Test Equipment Familiarization **Saturday 11/9**

To get more information visit: www.antiquewireless.org/homepage/learn-build-fix-classes/

AWA SHARES

MICHAEL C. MIGLIACCIO, N3HLM, VICE PRESIDENT, AWA

The monthly *AWA Shares* is about to stage its thirtieth presenter. Thanks to the video on-line streaming of Zoom becoming so popular in the past few years, people are now able to learn more about the historical and technical universe of communications. Presented topics have ranged from accounts of the bygone era of electrically assisted communications to the specific technology details of practical designs. Every third Wednesday of the month Zoom presentations bring you the adventures of early communications pioneers into the privacy and convenience of your home. Audio kits, locating power line noise, NASA communications, early amateur radio pursuits, telegraphy, broadcast history and many other topics delivered to you, in the comfort of your special space where you can sit in your comfy clothes, sip a favorite beverage, enjoying your favorite snack. I encourage you to go to the AWA website and register for the free monthly *AWA Shares* presentations.

Link: <https://www.antiquewireless.org/homepage/awa-shares/>

RARA OFFICERS, DIRECTORS AND COORDINATORS

OFFICERS

President: Scott Theis, W2LW	(845) 774-9809	president@rochesterham.org	Treasurer: Brian O'Connor, KA2CGB	(585) 721-2346	treasurer@rochesterham.org
Vice-President: Tim Barrett, K9VB	(646)496-5015	vicepresident@rochesterham.org	Secretary: Mike Moore, KC2NM	(585) 721-0011	secretary@rochesterham.org

DIRECTORS

Richard Bishopp, KD2UBJ	(585) 766-5631	rbishopp44@gmail.com	Karl Heinz Kremer, K5KHK	(585) 210-0840	k5khk@khk.net
Tim Guyot, KB1POP	(585) 406-3163	timguyot@gmail.com	Dave Wilson, WA2HOY	(585) 200-4447	davidrw@rochester.rr.com
Mike Kennerknecht, N2MAK	(585) 754-2444	makennerknecht@gmail.com			

ACTIVITY COORDINATORS

Club Historian	Ed Gable, K2MP	egable@rochester.rr.com	Online Meetings	Scott Theis, W2LW	sa_theis@hotmail.com
Club Station Trustee	Dave Enright, K3WHD	denright1228@gmail.com	Public Service	Mike Moore, KC2NM	publicservice@rochesterham.org
Education Coordinator	Karl Heinz Kremer, K5KHK	education@rochesterham.org	QSL MANAGER	Dave Enright, K3WHD	denright1228@gmail.com
Elmers' Corner	Richard Bishopp, KD2UBJ Suzanne Bishopp, W2SUZ	elmerscorner@rochesterham.org	Raffle Administrators	Forest Shick, WA2MZG Jeff Sonstein, WA2RRB	wa2mzg@arrl.net
Groups.io Moderators	Tim Barrett, K9VB Karl Heinz Kremer, K5KHK	tim.k9vb@gmail.com k5khk@khk.net	RARA Academy	Volunteer Needed	academy@rochesterham.org
Hamfest Co-Producers	Tim Guyot, KB1POP Mike Moore, KC2NM	hfproducer@rochesterham.org	RARA RAG Editor Proofreaders	Paul Goldman, WA2TAX Forest Shick, WA2MZG Susan Aiello, W2SBA Dave Wilson, WA2HOY	editor@rochesterham.org Mark Pedersen, KC2UES Scott Theis, W2LW
License Testing Coordinator	Don Kiser, AC2EV	dkiser100@gmail.com	Refreshments	Rich Hoffarth, K2AXP	rhoffarth2000@yahoo.com
Media Communications	Tim Guyot, KB1POP	timguyot@gmail.com	Reward Points Administrator	Tim Barrett, K9VB	membership@rochesterham.org
Meeting Audio	Joe DiVincenzo, AD2DB Scott Czeck, KC1GHT	joedy58@gmail.com scottczeck@gmail.com	Telephone Hotline	Scott Theis, W2LW	sa_theis@hotmail.com
Membership Secretary	Tim Barrett, K9VB	membership@rochesterham.org	Webmaster	Scott Theis, W2LW	webmaster@rochesterham.org

ROCHESTER AREA RADIO CLUB CONTACTS

Amateur Radio Association of the Southern Tier (ARAST)

Reiner Dieg, N2PEZ: n2pez@arrl.net

Antique Wireless Association (AWA)

Lynn Bisha, W2BSN: lynnbisha@gmail.com

Astronomy Section Rochester Academy of Science

Mark Minarich: mminaric@rochester.rr.com

Community Amateur Radio Club (CARC)

Joe Gangi, AC2NB: ac2nb.carc@gmail.com

Digital Communications Association of Perinton (DCAP)

Gary Skuse, KA1NJL: ka1njl@arrl.net

Drumlins Amateur Radio Club Ltd. (DARC)

drumlinsarc@gmail.com

Genesee Valley Amateur Radio Assn.

Bill Boyd, N3DSP: N3DSP@lafireline.net

Keuka Lake Amateur Radio Association (KLARA)

Jim Caneen, W2JTC: jcpilot@localnet.com

Monroe County ARES / RACES

Erin Platteter, AA2FO: secretary@monroecountyemcomm.org

Orleans County Amateur Radio Club (OCARC)

Terry Cook, K2EYS: k2eys@ocarc.us

Rochester Amateur Radio Association (RARA)

Scott Theis, W2LW: president@rochesterham.org

ROC City Net

Joe Merolillo, K2ZX: k2zx52@gmail.com

Rochester DX Association (RDXA)

Chris Shalvoy, K2CS: cshalvoy@att.net

Rochester Institute of Technology ARC

Jim Stefano, W2COP: wireless@mail.rit.edu

Rochester Radio Repeater Association (RRRA)

Bob Shewell, N2HJD: bshewell@frontiernet.net

Rochester VHF Group (RVHFG)

Rus Healy, K2UA: chairman@rvhfg.org

Skenoh Island Amateur Radio Club (SIARC)

Steve Benton, WB2VMR: sbenton2@rochester.rr.com

West Side Amateur Radio Club

XRX Amateur Radio Club

Brian Donovan, K2AS: k2as@outlook.com

Rochester Makerspace

David Duckles: rocmakers@gmail.com

AUGUST RAG DEADLINE

JULY 15, 2024

**RARA MEETS AT 7PM ON THE FIRST
WEDNESDAY OF EACH MONTH.**

NO FORMAL MEETING IN JULY, SEE PAGE 1

CONTACT WEBMASTER@ROCHESTERHAM.ORG FOR SUPPORT

Rochester Area Repeater Listing

THE RARA RAG

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